

		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	18-00-00	9 1/2" NI-40x	1	62	MFD
J1DJ	18-00-00	9 1/2" NI-40x	2	6	MFD
J2	16-00-00	9 1/2" NI-40x	1	5	MFD
J3	8-00-00	9 1/2" NI-40x	1	1	MFD
J4	6-00-00	9 1/2" NI-40x	1	4	MFD
J5	4-00-00	9 1/2" NI-40x	1	6	MFD
J6	2-00-00	9 1/2" NI-40x	1	4	MFD
B4	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B2	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B3	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B1	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B5	4-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD

C	onnector	Summary
Qty	Manuf	Product
6	H1	IUS2.56/9.5
4	H1	IUS2.56/9.5
2	H1	IUS2.56/9.5
6	H1 ,	IUS2.56/9.5
1	H5	HU3122Y OF HAMILTO
		Building Division

Permit No. 29-107207

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW drawings and/or specifications have been reviewed by

FEB 2 2 2021

ALPA LUMBER GROUP

FROM PLAN DATED:

BUILDER: GREENPARK HOMES

SITE: RUSSELL GARDEN S PH 3

MODEL: MOUNTAINASH 5

ELEVATION: 3

LOT: 34/

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION **GUIDE FOR PROPER STORAGE AND**

INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH **BLOCKS REQ'D UNDER CONCENTRATED** LOADS, SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS, FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7, TABLES 1 & 2. CERAMIC TILE APPLICATION AS PER O.B.C 9.30.6.

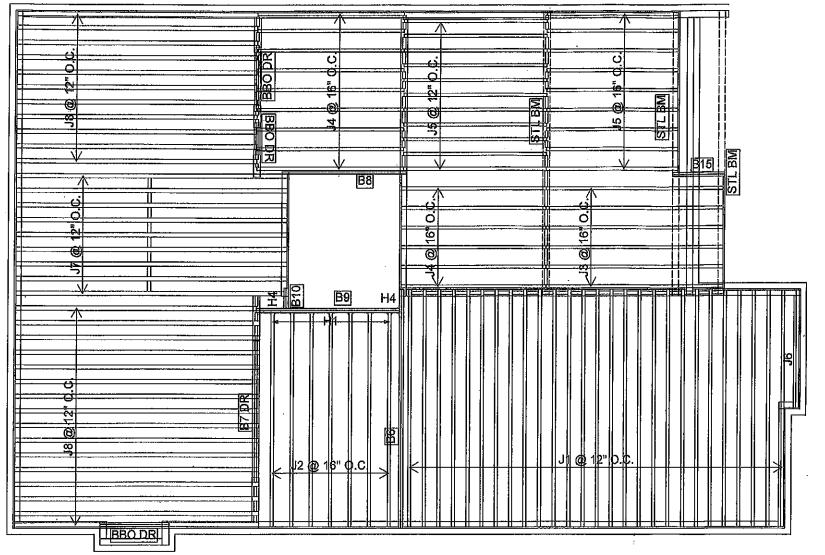
LOADING:

DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft2 DEAD LOAD: 20.0 lb/ft 2

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-02-07

1st FLOOR



		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	18-00-00	9 1/2" NI-40x	1	27	MFD
J2	16-00-00	9 1/2" NI-40x	1	7	MFD
J3	14-00-00	9 1/2" NI-40x	1	6	MFD
J4	12-00-00	9 1/2" NI-40x	1	15 ·	MFD
J5	10-00-00	9 1/2" NI-40x	1	20	MFD
J6	8-00-00	9 1/2" NI-40x	1	1	MFD
J7	20-00-00	9 1/2" NI-80	1	9	MFD
J8	18-00-00	9 1/2" NI-80	1	27	MFD
B6	18-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B8	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B9	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B7 DR	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	3	3	MFD
B15	4-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B10	2-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD

Connector Summary								
Qty	Manuf	Product						
7	H1	IUS2.56/9.5						
2	H4	HGUS410						

CITY OF HAMILTON Building Division

Permit No. 29-107209

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH WE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

e drawings and/or specifications have been reviewed by FEB 2 2 2021

OILDING OFFICIAL

BIAG



FROM PLAN DATED:

BUILDER: GREENPARK HOMES

SITE: RUSSELL GARDEN S PH 3

MODEL: MOUNTAINASH 5

ELEVATION: 3

LOT: 34/

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ REVISION:

NOTES:

REFER TO THE NORDIC INSTALLATION **GUIDE** FOR PROPER STORAGE AND INSTALLATION, SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE **SQUASH BLOCKS REQ'D UNDER** CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7 TABLES 1 & 2 OF THE INSTALLATION GUIDE. CERAMIC TILE APPLICATION AS PER O.B.C. 9.30.6

LOADING:

DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft² DEAD LOAD: 20.0 lb/ft ²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2020-02-07

2nd FLOOR

NORDIC STRUCTURES

COMPANY Apr. 9, 2020 09:52 PROJECT
J1 1ST FLOOR.wwb

Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

Load	Type	Distribution	Pat- tern	Location Start	[ft] End	Magnitud Start	le End	Unit
Load1 Load2	Dead Live	Full Area Full Area				20.00 40.00		psf psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored: Dead Live	164 329	164 329
Factored: Total	698	698
Bearing: Capacity Joist Support	1865 3971	1893
Des ratio Joist Support	0.37 0.18	0.37
Load case Length	#2 2-3/8	#2 5-1/4
Min req'd Stiffener	1-3/4 No	1-3/4 No 1.00
KD KB support fcp sup	1.00 1.00 769	-
Kzcp sup	1.09	

Nordic 9-1/2" NI-40x Floor joist @ 12" o.c.

Supports: 1 - Lumber Sill plate, No.1/No.2; 2 - Steel Beam, W; Total length: 16' 11"; Clear span: 16' 3-3/8"; 3/4" nailed and glued OSB sheathing This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 698	Vr = 1895	lbs	Vf/Vr = 0.37
Moment (+)	Mf = 2867	Mr = 4824	lbs-ft	Mf/Mr = 0.59
Perm. Defl'n	0.14 = < L/999	0.55 = L/360	in	CESSION 0.25
Live Defl'n	0.27 = L/721	0.41 = L/480	in pro	0.67
Total Defl'n	0.41 = L/480	0.82 = L/240	in An	41610 0.50
Bare Defl'n	0.33 = L/603	0.55 = L/360	in s	416NO \$ 0.60
Vibration	Lmax = 16'-5.1	Lv = 17'-1.5		1 0.96
Defl'n	= 0.034	= 0.039	in C c	ATSOULAKOS \$60.87
Derr II			133	

DWO NO. TAM 6062-20 STRUCTURAL COMPONENT ONLY

POVINCE OF ON THE

WoodWorks® Sizer

for NORDIC STRUCTURES

J1 1ST FLOOR.wwb

Nordic Sizer - Canada 7.2

Page 2

A delitions	Dotos									
Additional		***	7211	KZ	KL	KT	KS	KN	LC#	
FACTORS:	f/E	KD	KH	NΔ	Kn	1/2	-		#2	
Vr	1895			_	1 000	_	_		#2	
Mr+	4824			-	1.000	_	-	_	#2	
EI	218.1 m	illion	-			-	_	_	# 4	
CRITICAL L	DAD COMB	INATIONS	3:							
Shear	: LC #2	= 1.25	5D + 1.5							
Moment (+): LC #2	= 1.25	5D + 1.5	L						
Deflecti	on: LC #1	= 1.01) (perm	anent)						
Donato	T.C #2	= 1.01	0 + 1.01	(live)					
	T.C #2	= 1.01	0 + 1.0L	(tota	1)					
	T.C. #2	= 1.01	0 + 1.0L	(bare	joist)					
Daamdoon	• Chaba	rt 1 - 1	rc #2 =	1.25D +	1.5L					
Bearing	: Subbc	ort 2 - 1	.c #2 ==	1 25D +	1.5%					
l	Suppe		uc πε -	ow Hee	arth, grou	ndwate	r E=ear	thquake	3	
Load Typ	es: ⊅=dea	ad M=MT	iid 3-31	OW M-C	ive(store	ומם במוז	inment)	f=fire	4	
1	T≔T11	re (use, o	ccupancy) 719-T	TAG (PCOT	ige,equ	a enan			
Load Pat	terns: s=	=S/2 L=.	L+LS _=	no parr	ern load	TII CIIT	a span			
All Load	Combinat	cions (L	Cs) are	listed	in the Ar	татувтв	output			
LCALCULATI	ONS:								CONPORMS TO	ORG 2012
PTAFF ::	265 29 11	o~in^2 !	K≔ 4.94	e06 lbs						A D A W A C C
"Live" d	eflection	n is due	to all	non-dea	d loads	live,	wind, sn	ow)	AMENDED	2020

Design Notes:

1. WoodWorks analysis and design are in accordance with the 2015 National Building Code of Canada (NBC), Division B, Part 4, and the CSA 086-14 Engineering Design in Wood standard, Update No. 2 (June 2017).

2. Please verify that the default deflection limits are appropriate for your application.

3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.

4. Nordic I-joists are listed in CCMC evaluation report 13032-R.

5. Joists shall be laterally supported at supports and continuously along the compression edge.

6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.

OVINCE OF ON

BWG NO. 74M 6062 -20 STRUCTURAL COMPONENT ONLY

NORDIC STRUCTURES

COMPANY Apr. 9, 2020 09:52

PROJECT
J1 2ND FLOOR.wwb

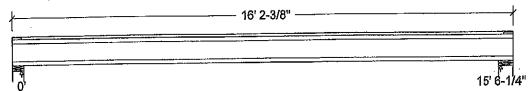
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

Load	Туре	Distribution	Pat- tern	Location Start	[ft] End	Magnitude Start End	Unit
Load1 Load2	Dead Live	Full Area Full Area				20.00 40.00	psf psf

Maximum Reactions (lbs) and Support Bearing (in):



	- ,	
Unfactored: Dead Live	155 310	155 310
Factored: Total	660	660
Bearing: Capacity Joist Support	1893 7744	1893 9724
Des ratio Joist Support Load case	0.35 0.09 #2	0.35 0.07 #2
Length Min req'd Stiffener	4-3/8 1-3/4 No	5-1/2 1-3/4 No
KD KB support	1.00	1.00 - 769
Vacan cum	_	

| Kzcp sup | - | Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

Nordic 9-1/2" NI-40x Floor Joist @ 12" o.c.

Supports: All - Lumber Wall, No.1/No.2

Total length: 16' 2-3/8"; Clear span: 15' 4-1/2"; 5/8" nailed and glued OSB sheathing with 1/2" gypsum ceiling

This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

MILLING COLORS	g v			
Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 660	Vr = 1895	lbs	Vf/Vr = 0.35
	Mf = 2559	Mr = 4824	ھے lbs-ft	SESMEMIN = 0.53
Moment(+)	0.11 = < L/999	0.52 = L/360	in Jo	0.22
Perm. Defl'n	0.23 = L/825	0.39 = L/480	in (9)	0.58
Live Defl'n	0.23 = L/550	0.78 = L/240	in //3//	41620 60.58
Total Defl'n	1 0,00	0.52 = L/360	in 150 %	1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Bare Defl'n	151 6 3	Lv = 16! - 8.5	ft 19 c	KATSOULAKOS 20.51
Vibration	1 221112	= 0.042	in .	0.70
Defl'n	= 0.033	= 0.042		September 19
			<u> </u>	

694 no.74m6063 -20 Structural

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WoodWorks® Sizer

for NORDIC STRUCTURES

J1 2ND FLOOR.wwb

Nordic Sizer - Canada 7.2

Page 2

· · · · · · · · · · · · · · · · · · ·			•	_						
Additional	Data:									
FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#	
Vr	1895	1.00	1.00	-	_		-	-	#2	
Mr+	4824		1.00	-	1.000	-	-	-	#2	
EI	218.1 m		_	-	-	-	-	-	#2	
CRITICAL LO			3:							
Shear	- + 11 0	= 1.2	5D + 1.5							
Moment(+)	. IC #2									
Deflection	n: LC #1	= 1.01	D (perm	anent)						
Dericcer	IC #2	= 1.0	D + 1.0L	(live	}					
	LC #2	= 1.0	D + 1.0L	(tota	1)					
	IC #2	= 1.01	D + 1.0L	bare	joist)					
Bearing	· Suppo	rt 1 - 1	LC #2 =	1,25D +	1.5L					
1	Suppo	rt 2 - 1	LC #2 =	1.25D +	1.5L					
Load Tyme	ae. D≕qea	d W=wi	nd S=sn	ow H≕e	arth,grou	ndwate:	r E=ear	thquake		
HOAG TYPE	J. J. ada T.=liv	re (use. o	ccupancy) Ls≕l	ive (stora	ge, equ	ipment)	f=fire		
Load Part	terns: S=	s/2 L=	L+Ls =	no patt	ern load	in this	sspan			
All Load	Combinat	ions (L	Cs) are	listed	in the An	alysis	output			
CALCULATION			,			-	*		CONFORMS TO	ARC 2012
Eleff = 2	0110. 258 29 1h	-in^2	K≕ 4.94	e06 lbs					and the second of the	WAR TO THE
Fiell -	oflection	is due	to all	non-dea	d loads: (live,	wind, sn	ow)	AMENDED	2020
Trine. or	CTTCCTTON								, , , , , , , , , , , , , , , , , , ,	

Design Notes:

- 1. WoodWorks analysis and design are in accordance with the 2015 National Building Code of Canada (NBC), Division B, Part 4, and the CSA O86-14 Engineering Design in Wood standard, Update No. 2 (June 2017).
- 2. Please verify that the default deflection limits are appropriate for your application.
- 3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- 4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
- 5. Joists shall be laterally supported at supports and continuously along the compression edge.
- 6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrily of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



OWO NO. TAN 6063 -20 STRUCTURAL COMPONENT ONLY

NORDIC STRUCTURES COMPANY Apr. 9, 2020 09:51 PROJECT

J6 2ND FLOOR.wwb

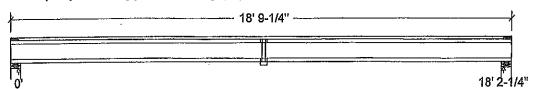
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

Load	Туре	Distribution	Pat-	Location	[ft]	Magn1tude		Unit
			tern	Start	End	Start	End	
Load1	Dead	Full Area		•		20.00		psf
Load2	Live	Full Area				40.00		psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored: Dead Live	182 364	182 364
Factored: Total	773	773
Bearing: Capacity Joist Support	1893 10841	1893 10841
Des ratio Joist Support Load case	0.41 0.07 #2	0.41 0.07 #2
Length Min req'd Stiffener	4-3/8 1-3/4 No	4-3/8 1-3/4 No
KD KB support fcp sup	1.00 - 769	1.00 - 769
Kzcp sup	-	

Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

Nordic 9-1/2" NI-80 Floor joist @ 12" o.c.

Supports: All - Lumber Wall, No.1/No.2

Total length: 18' 9-1/4"; Clear span: 18' 1/2"; 5/8" nailed and glued OSB sheathing with 1 row of blocking; strapping at blocking locations and 1/2" gypsum ceiling

This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 773	Vr = 1895	lbs	VE/Vr = 0.41
Moment (+)	Mf = 3514	Mr = 8958	lbs-ft	OFENE NOW . 0.39
Perm. Defl'n	0.15 = < L/999	0.61 = L/360	in 🖍	0.25
Live Defl'n	0.30 = L/726	0.45 = L/480	in //	1.11.20 30.66
Total Defl'n	0.45 = L/484	0.91 = L/240	in S	10.50 10.50
Bare Defl'n	0.34 = L/649	0.61 = L/360	1 N 64 h	LUATONII AKAS 1855
Vibration	$Lmax = 18^{T}-2.3$	Lv = 20'-0.5	ft 📆	KATSOULAKOS 1865
Defl'n	= 0.028	= 0.034	in 🐧	0/81

OWE NO. TAM 6069-20 STRUCTURAL

6 4

WoodWorks® Sizer

for NORDIC STRUCTURES

J6 2ND FLOOR, wwb

Nordic Sizer - Canada 7.2

Page 2

Additional	Data:									
FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#	
۷r	1895	1.00	1.00		_		-	-	#2	
	8958		1.00		1.000	-	-	_	#2	
EI	324.1 m	illion			-	-	-	-	#2	
CRITICAL LO										
Shear	: LC #2	= 1.2	5D + 1.5I	٠	•					
Moment (+)) : LC #2	= 1.25	5D + 1.5I							
Deflection	on: LC #1	= 1.01) (perma	nent)						
Derreet	TC #2	= 1.01) + 1.0L	(live))					
) + 1.0L							
	LC #2	= 1.01) + 1.0L	(bare	joist)					
Bearing	: Suppo	rt 1 - 1	LC #2 = 1	.25D +	$\tilde{1}.5L$					
Douring	Suppo	rt 2 - 1	LC #2 = 1	.25D +	1.5L					
Load Type		d W=wi	nd S=sno	w H=ea	arth, grou	ndwate	r E=ear	thquake		
2000 115	L=11v	e (use, o	ccupancy)	Ls=l:	ive(stora	ge, equi	ipment)	f=fire		
Load Pati	terns: s=	S/2 L=1	L+Ls =r	o patte	ern load	in this	sspan		·	
All Load	Combinat	ions (L	Cs) are l	isted :	in the An	alysis	output			
CALCULATI						-			canforms to	DRC 2012
FTeff =	367.27 lb	-in^2 1	<= 4.94ε	e06 lbs					addianua ir	41 14 4 14 19
"I.ive" d	eflection	is due	to all r	ion-dead	d loads (live, v	wind, sn	.ow)	AMENDED	2020
1 77.45 0.	C11000101	~~				•			Material States and De-	-4-5

Design Notes:

- 1. WoodWorks analysis and design are in accordance with the 2015 National Building Code of Canada (NBC), Division B, Part 4, and the CSA O86-14 Engineering Design in Wood standard, Update No. 2 (June 2017).
- 2. Please verify that the default deflection limits are appropriate for your application.
- 3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- 4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
- 5. Joists shall be laterally supported at supports and continuously along the compression edge.
- 6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



BWB NO. TAN 6064-20 STRUCTURAL COMPONENT ONLY





PASSED

February 7, 2020 09:30:29

1ST FLR FRAMING\Flush Beams\B1(i1498) (Flush Beam)

BC CALC® Member Report

Bulld 7239 Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

Dry | 1 span | No cant.

MOUNTAINASH 5 EL 1.mmdl

File name: Description:

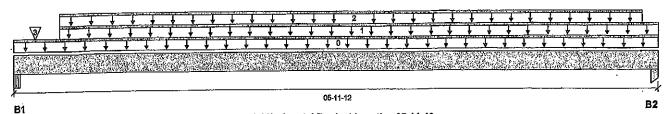
Wind

Specifier:

1ST FLR FRAMING\Flush Beams\B1(i1498)

Designer:

Company:



Total Horizontal Product Length = 05-11-12

Snow

Reaction Summary (Down / Uplift) (lbs)

LIGHTH ON	14 11 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Bearing	Live	Dead	
B1, 5-1/4"	147 / 0	289/0	
B2. 1-3/4"	77 / 0	228 / 0	

CCMC 12472-R

f	Load Summary						Live	Dead	Snow Wind	Tributary	
	Tag Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
7) Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-11-12	Top		10			00-00-00
,	FC1 Floor Material	Unf, Lin. (lb/ft)	L	00-05-04	05-11-12	Тор	27	14			n\a
		, ,	L	00-05-04	05-10-00	Top		60			n\a
	3 12(l619)	Conc. Pt. (lbs)	L	00-02-08	00-02-08	Тор	72	60		C C LC	n\a
	2 WALL 3 12(1619)	Unf. Lin. (lb/ft) Conc. Pt. (lbs)	L L			• •	72			SSION	n\

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	443 ft-lbs	15093 ft-lbs	2.9%	0	03-01-10
End Shear	222 lbs	7521 lbs	3.0%	0	01-02-12
Total Load Deflection	L/999 (0.005")	n\a	n\a	4	03-01-10
Live Load Deflection	L/999 (0.001")	n\a	n\a	5	03-01-10
Max Defl.	0.005"	n\a	n\a	4	03-01-10
Span / Depth	7.0				

Beari	ing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material	
B1	Beam	5-1/4" x 3-1/2"	405 lbs	7.9%	2.8%	Unspecified	
B2	Column	1-3/4" x 3-1/2"	319 lbs	12.3%	6.6%	Unspecified	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

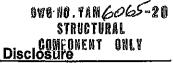
COMPORMS TO OBC 2012

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086. Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE 3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ 8 " 0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE, DONOTUSE AIR HALLS



NOVINCE OF O

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Gulde and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





PASSED

1ST FLR FRAMING\Flush Beams\B2(i1522) (Flush Beam) Dry | 1 span | No cant.

February 7, 2020 09:30:29

BC CALC® Member Report Build 7239

Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

File name:

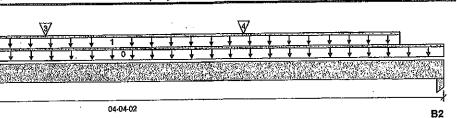
MOUNTAINASH 5 EL 1.mmdl

1ST FLR FRAMING\Flush Beams\B2(i1522) Description:

Specifier:

Designer: Company:

CCMC 12472-R



Wind

Total Horizontal Product Length = 04-04-92

Snow

Reaction Summary (Down / Uplift) (lbs)

Live B1, 1-3/4" 239 / 0 182 / 0 B2, 3-1/2"

- D 0 0	~	
246	/0	
219	/0	

	ad Summary Description	Load Type	Ref.	Start	End	Loc.	Live 1.00
Tag	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-04-02	Тор	
4	WALL	Unf. Lin. (lb/ft)	L	00-01-12	04-00-10	Тор	
2	J4(i1461)	Conc. Pt. (lbs)	L	00-03-14	00-03-14	Top	. 105
	- •	Conc. Pt. (lbs)	L.	01-07-14	01-07-14	Top	158
3 4	J4(11445) J4(i1521)	Conc. Pt. (lbs)	Ĺ	02-11-14	02-11-14	Тор	158

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	658 ft-lbs	11610 ft-lbs	5.7%	1	01-07-14
End Shear	480 lbs	5785 lbs	8.3%	1	03-03-02
	L/999 (0.006")	n\a	n\a	4	02-01-06
Total Load Deflection	L/999 (0.003")	n\a	n\a	5	02-01-06
Live Load Deflection Max Defl.	0.006" 5.1	n\a	n\a	4	02-01-06
Span / Depth	ə. I				

Bos	ring Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material	
B1	Column	1-3/4" x 1-3/4"	667 lbs	33,5%	17.9%	Unspecified	
B2	Column	3-1/2" x 1-3/4"	546 lbs	13.7%	7.3%	Unspecified	

Notes

Design meets Code minimum (L/240) Total load deflection criterla. Design meets Gode minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

DWS NO. TAN 6066-20 STRUCTURAL COMPONENT ONLY

OVINCE OF OR OF

Wind

1.15

PROFESSIONA

Snow

1.00

Dead

0.65

5 60

52

79

79

Tributary

00-00-00

n\a

n\a

n\a

n\a

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Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B3(I1455) (Flush Beam)

PASSED

February 7, 2020 09:30:29

CCMC 12472-R

BC CALC® Member Report Build 7239

Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

Dry | 1 span | No cant.

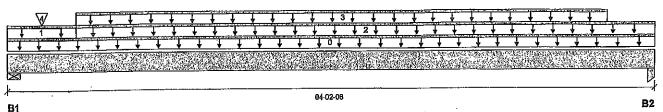
File name: MOUNTAINASH 5 EL 1.mmdl

Description:

1ST FLR FRAMING\Flush Beams\B3(i1455)

Specifier: Designer:

Company:



Total Horizontal Product Length = 04-02-96

Reaction Summary (Down / Opin y (tos)									
Bearing	Live	Dead	Snow	Wind					
B1, 5-1/2"	32 / 0	188 / 0							
B2 3-1/2"	19/0	123 / 0							

Load Summary		;					Live	Dead	
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-02-06	Тор		5	
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	00-05-08	Top	8		
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-05-08	04-02-06	Top	9	5	
3	WALL	Unf. Lin. (lb/ft)	L	00-05-08	03-10-14	Top		60	
4	10(1544)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Тор	12	64	A B

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	155 ft-lbs	7546 ft-lbs	2.1%	0	02-02-03
End Shear	91 lbs	3761 lbs	2.4%	0	01-03-00
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	02-02-03
Live Load Deflection	L/999 (0")	nlà	n\a	5	02-02-03
Max Defl.	0.001"	n\a	n\a	4	02-02-03
Span / Depth	4.5				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1		5-1/2" x 1-3/4"	263 lbs	6.8%	3.4%	Spruce-Pine-Fir
B2	Column	3-1/2" x 1-3/4"	172 lbs	6.6%	3.5%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



Wind

1.15

Tributary

00-00-00

Snow

1.00

DWB NO. TAM 6067-20 STRUCTURAL COMPONENT ONLY

Disclosure

AMENDED 2020

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> BC CALC®, BC FRAMER® , AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Passed

1ST FLR FRAMING\Flush Beams\B4(i1440) (Flush Beam)

BG CALC® Member Report

Dry | 1 span | No cant.

February 7, 2020 09:30:29

Build 7239 Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

File name:

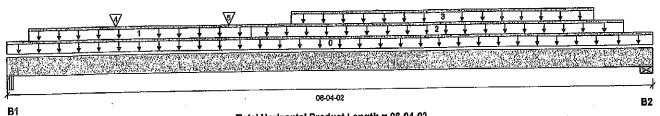
MOUNTAINASH 5 EL 1.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B4(i1440)

Specifier:

Designer: Company:

CCMC 12472-R



Total Horizontal Product Length = 06-04-02

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 5-1/4"	1442 / 0	799 / 0
B2, 3-1/2"	1552 / 0	826 / 0

	d O						Live
LO8 Tag	ad Summary Description	Load Type	Ref.	Start	End	Loc.	1.00
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	06-04-02	Top	
4	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-02-10	02-04-10	Top	26
1		Unf. Lin. (lb/ft)	ı	02-04-10	06-00-10	Top	240
2	STAIR	Unf. Lin. (lb/ft)	ī	02-09-06	05-09-06	Top	341
3	Smoothed Load	• •	1	01-00-14			316
4	J1(i1486)	Conc. Pt. (lbs)	L			•	
5	-	Conc. Pt. (lbs)	L.	02-02-01	02-02-01	Тор	695

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	5363 ft-lbs	23220 ft-lbs	23.1%	1	03-03-06
	2948 lbs	11571 lbs	25.5%	1	01-02-12
End Shear	L/999 (0.044")	n\a	n\a	4	03-03-06
Total Load Deflection	L/999 (0.029")	n\a	n\a	5	03-03-06
Live Load Deflection Max Defl.	0.044"	n\a	n\a	4	03-03-06
Span / Depth	7.2				

Dogelno	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	5-1/4" x 3-1/2"	3161 lbs	40.3%	14.1%	Unspecified
B2	Wall/Plate	3-1/2" x 3-1/2"	3360 lbs	44.6%	22.5%	Spruce-Pine-Fir

Notes

Span / Depth

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

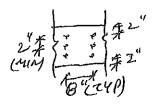
CONFORMS TO OBG 2012

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



PROVIDE 3 ROWS OF 31/1 ARDOX SPIRAL NAILS @8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



Wind

Snow

Dead

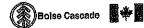
Tributary

NV8 NO. TAN 6068-20 STRUCTURAL COMPONENT ONLY

Disclosure

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PASSED

February 7, 2020 09:30:29

1ST FLR FRAMING\Flush Beams\B5(i1548) (Flush Beam) Dry | 1 span | No cant.

BC CALC® Member Report Build 7239

Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

MOUNTAINASH 5 EL 1.mmdl

File name: 1ST FLR FRAMING\Flush Beams\B5(i1548) Description:

Wind

CONFORMS TO OBC 2012

Live

Dead

Snow

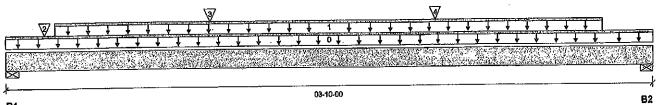
Wind

Tributary

Specifier:

CCMC 12472-R

Designer: Company:



Total Horizontal Product Length = 03-10-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow
B1, 3-1/2"	1050 / 0	535 / 0	
DO 2 1/2"	786 / 0	392 / 0	

Lo	ad Summary			,			4.00	0.05	4.00	A 45	
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
	Self-Weight	Unf. Lin. (lb/ft)	Ĺ	00-00-00	03-10-00	Тор		5		00	0-00-00
4	STAIR	Unf. Lin. (lb/ft)	L	.00-03-08	03-06-08	Top	240	120			n\a
1	J2(i1488)	Conc. Pt. (lbs)	Ī.	00-02-12	00-02-12	Top	289	145			n\a
2		Conc. Pt. (lbs)	ī	01-02-08	01-02-08	•	341	171		water a selection of the selection of th	⇒ n\a
3	J2(i1439)	• •	ī	02-06-08	02-06-08	•	403	201	A.	PROFESSIO	Vo hla
4	J2(i1540)	Conc. Pt. (lbs)	l	02-00-00	02-00-00	100	-700	201	NG POR	C. S. C. L.	W. W. J.
			Factored	Dem	and/				13	141620	Jan Co

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1549 ft-lbs	11610 ft-lbs	13.3%	1	02-00-08
End Shear	1228 lbs	5785 lbs	21.2%	1	02-09-00
Total Load Deflection	L/999 (0.009")	n\a	n\a	4	01-11-00
Live Load Deflection	L/999 (0.006")	n\a	n\a	5	01-11-00
Max Defl.	0.009"	n\a	n\a	4	01-11-00
Span / Depth	4.3				•

Rearin	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1		3-1/2" x 1-3/4"	2244 lbs	59.6%	30.0%	Spruce-Pine-Fir
B2	Wall/Plate	3-1/2" x 1-3/4"	1639 lbs	43.5%	21.9%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criterla.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



Disclosure

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BC CALC®, BC FRAMER® , AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





PASSED

2ND FLR FRAMING\Dropped Beams\B7 DR(i989) (Dropped Beam)

Dry | 1 span | No cant.

February 7, 2020 09:30:29

Bulld 7239

Job name: Address:

City, Province, Postal Code:

BC CALC® Member Report

Customer:

Code reports:

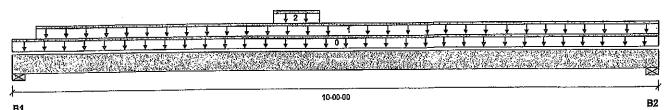
MOUNTAINASH 5 EL 1.mmdl

File name: Description: 2ND FLR FRAMING\Dropped Beams\B7 DR(i989)

Wind

Specifier:

Designer: Company:



Total Horizontal Product Length = 10-00-00

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 4"	1592 / 0	868 / 0
B2. 4"	1824 / 0	984 / 0

CCMC 12472-R

	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
<u> </u>	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	10-00-00	Тор		14		(00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-04-08	10-00-00	Тор	341	170			n∖a
2	Bk2(i1151)	Unf. Lin. (lb/ft)	L	04-00-04	04-08-12	Top	136	68		addies on mentality	n\a

Controls Summary	Factored Demand	Factored Resistance	Demand <i>l</i> Resistance	Case	Location
Pos. Moment	8666 ft-lbs	36222 ft-lbs	23.9%	1	04-10-08
End Shear	3250 lbs	17356 lbs	18.7%	1	08-10-08
Total Load Deflection	L/875 (0.13")	nla	27.4%	4	05-00-00
Live Load Deflection	L/999 (0.084")	n\a	n\a	5	05-00-00
Max Defl.	0.13"	n\a	n\a	4	05-00-00
Span / Depth	11.9				

Bearii	ng Supports	Dlm. (LxW)	Demand	Demand <i>i</i> Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	4" x 5-1/4"	3474 lbs	12.4%	13.6%	Spruce-Pine-Fir
B2	Wall/Plate	4" x 5-1/4"	3967 lbs	14.2%	15.5%	Spruce-Pine-Fir

ave no . Tan 6 070 - 20 STRUCTURAL COMPONENT ONLY

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

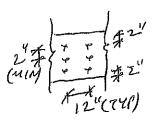
Calculations assume unbraced length of Top: 00-02-04, Bottom: 00-02-04.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



PROVIDE'S ROWS OF 31/2" ARDOX SPIRAL NAILS @ 12-0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2 LUMBER EDGE/END DISTANCE. BO NOT USE AIR NAILS BC CALCO, BC FRAMER®, AJSTM. STAGGER NAILS GUERN PLUSALLJOISTO, BC RIM BOARDTM, BC STAGGGEL NAILS 6"

Disclosure

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ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®



City, Province, Postal Code:

Job name:

Customer:

B2, 6-1/2"

Code reports:

Address:



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Passed

February 7, 2020 09:30:29

2ND FLR FRAMING\Flush Beams\B10(i1567) (Flush Beam)

Dry | 1 span | No cant. **BC CALC® Member Report Build 7239**

MOUNTAINASH 5 EL 1.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B10(i1567)

Specifier: Designer:

File name:

Company: CCMC 12472-R

<u> </u>		
Carlotte Carlotte Carlotte Carlotte Carlotte	_{garan} kan	A Managhar and American Manager
*	01-04-08	
B1	U -U4-U0	B2

Total Horizontal Product Length = 01-04-08

Reaction Summary (Down / Uplift) (lbs)

Wind LÌve Dead Snow Bearing 6/0 B1, 4" 8/0

Load Summary						Live	Dead	Snow	Wind	Tributary
Tag Description	Load Type	Ref.	Start	End-	Loc.	1.00	0.65	1.00	1.15	
0 Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-04-08	Тор		10			00-00-00

Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	1 ft-lbs	15093 ft-lbs	n\a	0	00-07-00
End Shear	3 lbs	7521 lbs	n\a	0	00-04-00
Snan / Denth	8.0				

Bearing Supports		ı Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material	
	B1	Hanger	4" x 3-1/2"	8 lbs	n\a	n\a	HGUS410	
	B2	\Nail/Plate	6-1/2" x 3-1/2"	11 lbs	0.1%	n\a	Spruce-Pine-Fir	

Cautions

Header for the hanger HGUS410 at B1 is a Double 1-3/4" x 9-1/2" VERSA-LAM® 1.7 2400 DF. Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

Calculations assume member is fully braced.

Hanger Manufacturer: Unassigned

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE3 ROWS OF 3½" ARDOX SPIRAL NAILS @ 6 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2" LUMBER EDGE/END DISTANCE DO NOT USE AIR NAILS



ave no. TAW 607/-20 STRUCTURAL COMPONENT ONLY

Disclosure

CONFORMS TO OBC 2012 Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. installation of Bolse Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

> BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B13(i625) (Flush Beam)

Passed

Dry | 1 span | No cant.

February 7, 2020 09:30:29

Build 7239

Job name: Address:

City, Province, Postal Code:

BC CALC® Member Report

Customer:

Code reports:

MOUNTAINASH 5 EL 1.mmdl

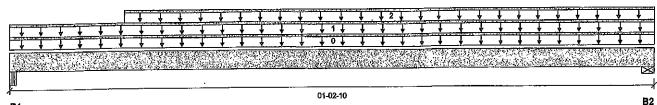
File name:

Description: 2ND FLR FRAMING\Flush Beams\B13(i625)

Specifier:

Designer:

Company:



В1

Total Horizontal Product Length = 01-02-10

Reaction Summary (Down / Uplift) (lbs)										
Bearing	Live	Dead	Snow	Win						
B1, 2-5/8"	42 / 0	41/0	72 / 0							
B2, 5-1/2"	66 / 0	63 / 0	. 107/0							

CCMC 12472-R

Los	ad Summary				-		Live	Dead	Snow	Wind	Tributary
Tag		Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
n	Self-Weight	Unf. Lln. (lb/ft)	L.	00-00-00	01-02-10	Top		10			00-00-00
1	ROOF	Unf. Lin. (lb/ft)	Ĺ	00-00-00	01-02-10	Top	77	70	147		n\a
2	FC2 Floor Material	Unf, Lin. (lb/ft)	L	00-02-10	01-02-10	Top	14	7			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	23 ft-lbs	23220 ft-lbs	0.1%	13	00-05-14
End Shear	114 lbs	11571 lbs	1.0%	13	00-02-10
Span / Depth	0.8				

Bearing	Supports	Dim. (LxW)	Demand	Resistance Support	Resistance Member	Material
B1	Beam	2-5/8" x 3-1/2"	201 lbs	5.1%	1.8%	Unspecified
B2	Wall/Plate	5-1/2" x 3-1/2"	306 lbs	2.6%	1.3%	Spruce-Pine-Fir

Notes

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86. Unbalanced snow loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition.

conforms to obc 2012

Importance Factor: Normal Part code: Part 9

AMENDED 2020

PROVIDE 3 ROWS OF 312" ARDOX SPIRAL NAILS @ 4 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2" LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS

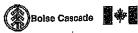


DWG NO. TAM 6022-20 STRUCTURAL COMPONENT ONLY

<u>Disclosure</u>

Use of the Boise Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Bolse Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAMIM, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B6(i1574) (Flush Beam)

PASSED

Dry | 1 span | No cant.

February 7, 2020 09:30:29

Build 7239

Job name: Address:

City, Province, Postal Code:

BC CALC® Member Report

Customer:

Code reports:

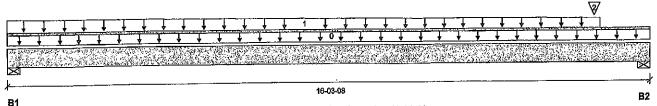
MOUNTAINASH 5 EL 1 mmdl File name:

Description: 2ND FLR FRAMING\Flush Beams\B6(i1574)

Specifier:

Designer:

Company: **CCMC 12472-R**



Total Horizontal Product Length = 16-03-08

Reaction Summary (Down / Uplift) (lbs)

Keaction out	minary (Scotti Co		_	880 d
Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	332 / 0	247 / 0		
B2, 5-1/2"	1753 / 0	999 / 0		

i a	nd Cummoni						Ļive	Dead	Snow	Wind	Tributary
LO. Tag	ad Summary Description	Load Type	Ref.	Start	End	Loc.	1.00	0,65	1.00	1.15	
ก	Self-Weight	Unf. Lin. (lb/ft)	L.	00-00-00	16-03-08	Тор	· ·	10			00-00-00
1	FC2 Floor Material	Trapezoidai (lb/ft)	L	00-00-00		Тор	. 29	15			n\a
'	1 02 1 1001 (1100)	, ,			15-00-00		23	11		وروين ورور	
2	B9(i1577)	Conc. Pt. (lbs)	L	14-10-04	14-10-04	Тор	1686	890	ONO	FESSIO	n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	4312 ft-lbs	23220 ft-lbs	18.6%	1	11-08-00
End Shear	3844 lbs	11571 lbs	33.2%	1	15-00-08
Total Load Deflection	L/703 (0.265")	n\a	34.1%	4	08-08-04
Live Load Deflection	L/1176 (0.158")	n\a	30.6%	5	08-08-04
Max Defl.	0.265"	n\a	n\a	4	08-08-04
Span / Depth	19.6				-

Res	aring Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1		5-1/2" x 3-1/2"	807 lbs	6.8%	3,4%	Spruce-Pine-Fir
B2	Wall/Plate	5-1/2" x 3-1/2"	3877 lbs	32.7%	16.5%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria. Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

Calculations assume member is fully braced.

AMENDED 2020

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE 3 ROWS OF 3½" ARDOX SPIRAL NAILS @ /2 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS

9WE NO. TAM 6073-20 STRUCTURAL COMPONENT ONLY

ONINCE OF ON

Disclosure

Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





PASSED

Tributary

00-00-00 n\a n\a n\a

February 7, 2020 09:30:29

2ND FLR FRAMING\Flush Beams\B8(i1569) (Flush Beam)

Dry | 1 span | No cant. **BC CALC® Member Report**

File name:

MOUNTAINASH 5 EL 1.mmdl

Description:

2ND FLR FRAMING\Flush Beams\B8(i1569)

Specifier:

Designer:

Customer:

B2, 5-1/2"

Build 7239

Job name:

Address:

Code reports:

City, Province, Postal Code:

CCMC 12472-R

Company:

		-
		↓4↓
111 + + + + +		1
1 1 1 1 1 1 1		5.5 (5.78/4.2)
The second secon		
200 miles (1990 miles 1990 miles 1990 miles 1990 miles 1990 miles (1990 miles 1990 miles 1990 miles 1990 miles	Billion of the State of the Commission of the Co	
/	08-08-09	_
D4	****	В
D'I	- 4 total control Direction () months = 00 00 00	

Total Horizontal Product Length = 08-06-08

Reaction Sun				
Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	32 / 0	265 / 0		
B2 5-1/2"	30 / 0	264 / 0		

	1.0						Live	Dead	Snow	Wind
	ad Summary	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15
Tag	Description Self-Weight	Unf. Lin. (lb/ft)	I	00-00-00	08-06-08	Тор		5		
0	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	00-05-08	Тор	10			
1		Unf. Lin. (lb/ft)	L	00-05-08	08-01-00	Top		60		
2	WALL	Unf. Lin. (lb/ft)	Ë	00-05-08	08-01-00	Тор	7	4		
3	FC2 Floor Material	Unf. Lin. (lb/ft)	ī	08-01-00	08-06-08	CoD	6		PRO	era an
4	FC2 Floor Material	Official (ID/11)	-	00 01 00	00 00 00		_		N. W.	PARTY TO SERVE

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	718 ft-lbs	7546 ft-lbs	9.5%	0	04-03-04
	289 lbs	3761 lbs	7.7%	0	01-03-00
End Shear	L/999 (0.024")	n\a	n\a	4	04-03-04
Total Load Deflection	L/999 (0.002")	n\a	n\a	5	04-03-04
Live Load Deflection Max Defl.	0.024"	n\a	n\a	4	04-03-04
Span / Depth	9.8				

Daning Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
Bearing Supports B1 Wall/Plate B2 Wall/Plate	5-1/2" x 1-3/4"	371 lbs	9.6%	4.9%	Spruce-Pine-Fir
	5-1/2" x 1-3/4"	370 lbs	9.6%	4.8%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria. Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBG 2012

Calculations assume member is fully braced.

AMENDED 2020

Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

046 NO. TAM 607-20 STRUCTURAL EQMIONENT ONLY Disclosure

OVINCE OF OURDS

Use of the Boise Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The oulput here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

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PASSED

2ND FLR FRAMING\Flush Beams\B9(i1577) (Flush Beam)

Dry | 1 span | No cant.

February 7, 2020 09:30:29

BC CALC® Member Report

Build 7239 Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

File name:

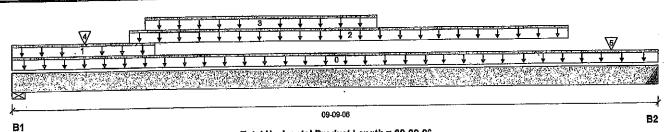
MOUNTAINASH 5 EL 1.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B9(i1577)

Specifier:

Designer: Company:

CCMC 12472-R



Total Horizontal Product Length = 09-09-06

Reaction Sur	nmary (Down / Up	lift) (lbs)	•		
Bearing	Live	Dead	Snow	Wind -	
B1, 2-3/4"	1918/0	1008 / 0	•		
B2, 4"	1730 / 0	914/0			••

	and Cummani			,			Live	Dead	Snow	Wind	Tributary
	oad Summary	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.16	
-	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	09-09-06	Тор		10	.,		00-00-00
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	02-01-14	Top	23	11			n\a
1	· ·	Unf. Lin. (lb/ft)	Ĺ.	01-09-04	08-05-04	Тор	298	149			n\a
4	Smoothed Load	Unf. Lin. (lb/ft)	Ē	02-00-01	05-06-01	Top	240	120			n\a
3	STAIR	Conc. Pt. (lbs)	i	01-01-04	01-01-04	Top	451	225			n\a
4	J2(i675)		-	09-01-04	09-01-04	Тор	321	161			n\a
F	.12(1673)	Conc. Pt. (lbs)	L	08-01-04	09-01-0-	ιop	02 (101			77.10

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	10250 ft-lbs	23220 ft-lbs	44.1%	1	04-07-04
End Shear	4076 lbs	11571 lbs	35.2%	1	01-00-04
Total Load Deflection	L/501 (0.224")	n\a	47.9%	4	04-09-04
Live Load Deflection	L/763 (0.147")	n\a	47.2%	5	04-09-04
Max Defl.	0.224"	n\a	n\a	4	04-09-04
Span / Depth	11.8				

Boaring	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/4" x 3-1/2"	4138 lbs	69.9%	35.2%	Spruce-Pine-Fir
B2	Hanger	4" x 3-1/2"	3738 lbs	n\a	21.9%	HGUS410



198 M. TAN 6075 -20 STRUCTURAL COMPONENT ONLY

Cautions

Header for the hanger HGUS410 at B2 is a Double 1-3/4" x 9-1/2" VERSA-LAM® 1.7 2400 DF, Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.





2ND FLR FRAMING\Flush Beams\B9(i1577) (Flush Beam)

Dry | 1 span | No cant.

February 7, 2020 09:30:29

Passed

BC CALC® Member Report

Bulld 7239 Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

File name:

MOUNTAINASH 5 EL 1.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B9(i1577)

Specifier:

Designer:

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria. Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

CONFORMS TO OBC 2012

Hanger Manufacturer: Unassigned

Resistance Factor phi has been applied to all presented results per CSA O86.

CCMC 12472-R

AMENDED 2020

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition. Importance Factor : Normal Part code : Part 9

PROVIDE3 ROWS OF 3½" ARDOX SPIRAL NAILS @8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2" LUMBER EDGE/END DISTANCE DO NOT USE AIR NAILS



gwa nd tan Go75 -20 Structural COMPONENT ONLY

Disclosure

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Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B15(i1694) (Flush Beam)

Passed

February 7, 2020 10:01:17

BC CALC® Member Report

Build 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer:

CCMC 12472-R Code reports:

Dry | 2 spans | No cant.

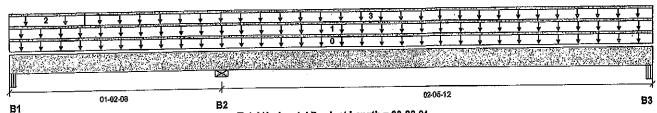
MOUNTAINASH 5 EL 3.mmdl

File name: 2ND FLR FRAMING\Flush Beams\B15(i1694) Description:

Specifier:

Designer:

Company:



Total Horizontal Product Length = 03-08-04

Reaction Sun	nmary (Down / Ul	piitt) (ibs)			
Bearing	Live	Dead	Snow	Wind	
B1, 5-1/4"	77 / 47	27 / 0	77 / 14		
B2, 5-1/2"	215 / 0	197 / 0	320 / 0		•
B3, 5-1/4"	122 / 1	111/0	181 / 0		

	- d O						Live	Dead	Snow	Wind	Tributary
	ad Summary Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
Tag	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-08-04	Тор		10			00-00-00
4	ROOF	Unf. Lin. (lb/ft)	L	00-00-00	03-08-04	Top	7 7	70	147		n\a
1	FC2 Floor Material	Unf. Lin. (lb/ft)	Ĺ	00-00-00	00-05-04	Top	27	13			n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L.	00-05-04	03-08-04	Top	22	11 .			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	159 ft-lbs	23220 ft-lbs	0.7%	66	02-05-08
	-182 ft-lbs	-23220 ft-lbs	0.8%	49	01-02-08
Neg. Moment End Shear	134 lbs	11571 lbs	1.2%	18	00-05-04
	299 lbs	11571 lbs	2.6%	67	00-11-12
Cont. Shear	L/999 (0")	n\a	n\a	126	02-04-05
Total Load Deflection	L/999 (0")	n\a	n\a	178	02-04-05
Live Load Deflection Max Defl.	0"	n\a	n\a	126	02-04-05
Span / Depth	2.7				

Reari	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	5-1/4" x 3-1/2"	227 lbs	2.3%	1.0%	Unspecified
		5-1/2" x 3-1/2"	940 lbs	7.9%	4.0%	Spruce-Pine-Fir
B2	Wall/Plate		+		2.4%	Unspecified
B3	Beam	5-1/4" x 3-1/2"	533 lbs	5.4%	2.470	Orispecialed

Uplift of 60 lbs found at bearing B1. (SIM PSON 2-H2-54 @ CT.



BWG NO. TAM 6076-20 STRUCTURAL COMPONENT ONLY





2ND FLR FRAMING\Flush Beams\B15(i1694) (Flush Beam)

Dry | 2 spans | No cant.

February 7, 2020 10:01:17

PASSED

BC CALC® Member Report Build 7239

Job name:

Address:

Customer:

Code reports:

City, Province, Postal Code: WATERDOWN

CCMC 12472-R

File name:

MOUNTAINASH 5 EL 3.mmdl

2ND FLR FRAMING\Flush Beams\B15(i1694) Description:

Specifier:

Designer:

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

Calculations assume member is fully braced.

AMENDED 2020

Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Unbalanced snow loads determined from building geometry were used in selected product's

verification.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDE3 ROWS OF 3½" ARDOX SPIRAL NAILS @ € "O/G FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE. DO NOT USE AIR NAILS



owa no. tan 6076-20 STRUCTURAL COMPONENT ONLY

Disclosure

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PASSED

April 16, 2020 08:25:38

1ST FLR FRAMING\Flush Beams\B1A(i1996) (Flush Beam)

BC CALC® Member Report Build 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

MOUNTAINASH 5 EL 1 DECK CONDITION.mmdl

Dead

0.65

10 250

169

169 169

File name: Description: 1ST FLR FRAMING\Flush Beams\B1A(i1996)

Specifier:

Designer:

Wind

Company:

	₩ .	₹	₩
	1 1 1 1 1		
₫		or 400 <u>- 1</u>	2
		03-01-00	В

Total Horizontal Product Length = 03-01-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow
B1. 3"	923 / 0	601/0	
B2 3"	1134 / 0	706 / 0	

1 ^	ad Summary						Live	
	Description	Load Type	Ref.	Start	End	Loc.	1.00	-
0	Self-Weight	Unf, Lin. (lb/ft)	L	00-00-00	03-01-00	Top		
1	E1(i402)	Unf. Lin. (ib/ft)	L	00-00-00	03-01-00	Top	337	
2	J1(11927)	Conc. Pt. (lbs)	. L	00-09-08	00-09-08	Top	339	
3	J1(11877)	Conc. Pt. (lbs)	L.	01-09-08	01-09-08	Тор	339	
4	J1(i1942)	Conc. Pt. (lbs)	Ĺ	02-09-08	02-09-08	Тор	339	•

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1386 ft-lbs	23220 ft-lbs	6.0%	1	01-08-06
End Shear	1690 lbs	11571 lbs	14.6%	1	01-00-08
Total Load Deflection	L/999 (0.003")	n\a	n\a	4	01-06-11
Live Load Deflection	L/999 (0.002")	n\a	n\a	5	01-06-11
Max Defl.	0.003"	n\a	n\a	4	01-06-11
Span / Depth	3.4				

	Rearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
۰	B1	Wall/Plate	3" x 3-1/2"	2135 lbs	33.1%	16.7%	Spruce-Pine-Fir
	B2	Wall/Plate	3" x 3-1/2"	2583 lbs	40.0%	20.2%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

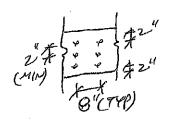
Calculations assume member is fully braced.

AMENDED 3030 Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



PROVIDES ROWS OF 3%" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDRE/END BISTANDE, DO NOT UDE AIR NAILS

and No. 74116077 -20 STRUCTURAL COMPONENT ONLY Disclosure

OVINCE OF

Wind

1.15

Snow

1.00

Tributary

00-00-00

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Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™. ALLJOIST®, BC RIM BOARDYM, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



Live Load = 40 psf, Dead Load = 30 psf Simple Spans, L/480 Deflection Limit 3/4" OSB GBN Sheathing







			8:	ire		[1/2" Gyp:	sum Celling			
Depth	Series		On Centr	e Spacing			On Centre Spacing				
		12"	16"	19.2"	24"	12"	16"	19.2"	24"		
_	NI-20	15'-7"	14'-2"	13'-4"	12'-4"	15'-7"	14'-2"	13'-4"	12'-4"		
	NI-40x	17'-0"	16'-0"	15'-1"	13'-11"	17'-5"	16'-1"	15'-1"	13'-11"		
9-1/2"	NI-60	17'-2"	16'-2"	15'-5"	14'-3"	17'-6"	16'-5"	15'-5"	14'-3"		
	NI-70	18'-0"	16'-11"	16'-3"	15'-6"	18'-5"	17'-3"	16'-7"	15'-6"		
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	15'-10"		
	NI-20	17'-10"	16'-10"	16'-0"	14'-10"	18'-6"	17'-1"	16'-0"	14'-10"		
	NI-40x	19'-4"	17'-11"	17'-3"	15'-10"	19'-11"	18'-6"	17'-9"	15'-10"		
	NI-60	19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'- 9 "	17'-11"	17'-1"		
11-7/8"	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"	18'-10"	17'-10"		
	NI-80	21'-1"	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"		
	NI-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"		
	NI-40x	21'-5"	19'-10"	18'-11"	17'-5"	22'-1"	20'-6"	19'-6"	17'-5"		
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"		
14"	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21'-11"	20'-10"	19'-9"		
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"		
	NI-90x	24'-1"	221-3"	21'-2"	20'-0"	24'-8"	22'-10"	21'-9"	20'-7"		
	NI-60	23'-9"	22 ⁱ -0"	20'-11"	19'-10"	24'-6"	22'-9"	21'-8"	20'-6"		
	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'-9"	21'-6"		
16"	NI-80	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"		
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"		

		Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Celling				
Depth	Serles		On Centr	e Spacing		On Centre Spacing				
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	
	NI-20	15'-7"	14'-2"	13'-4"	12'-4"	15'-7"	14'-2"	13'-4"	12'-4"	
	NI-40x	17'-9"	16'-1"	15'-1"	13'-11"	17'-9"	16'-1"	15'-1"	13'-11	
9-1/2"	NI-60	18'-1"	16'-5"	15'-5"	14'-3"	18'-1"	16'-5"	15'-5"	14'-3"	
	NI-70	19'-10"	17'-11"	16'-9"	15'-6"	19'- 1 0"	17'-11"	16'-9"	15'-6"	
	NI-80	20'-2"	18'-3"	17'-1"	15'-10"	20'-2"	18'-3"	17'-1"	15'-10	
	NI-20	18'-10"	17'-1"	16'-0"	14'-10"	18'-10"	17'-1"	16¹-0"	14'-10	
	NI-40x	21'-3"	19'-3"	17'-9"	15'-10"	21'-3"	19'-3"	17'-9"	15'-10	
m fort	NI-60	21'-9"	19'-8"	18'-5"	17'-1"	21'-9"	19'-8"	18'-5"	17'-1"	
11-7/8"	NI-70	23'-4"	21'-5"	20'-1"	18'-6"	23'-8"	21'-5"	20'-1"	18'-6"	
	NI-80	23'-7"	21'-10"	20'-5"	18'-11"	24'-1"	21'-10"	20'-5"	18'-11	
	NI-90x	24'-3"	22'-6"	21'-3"	19'-7"	24'-8"	22'-7"	21'-3"	19¹-7"	
-	NI-40x	24'-2"	21'-5"	19'-6"	17'-5"	24'-2"	21'-5"	19'-6"	17'-5"	
	NI-60	24'-9"	22'-5"	21'-0"	19'-6"	24'-9"	22'-5"	21'-0"	19'-6"	
14"	NI-70	26'-1"	24'-3"	22'-9"	21'-0"	26'-8"	24'-3"	22'-9*	21'-0"	
	NI-80	26'-6"	24'-7"	23'-3"	21'-6"	27'-1"	24'-10"	23'-3"	21'-6"	
	N1-90x	27'-3"	25'-4"	24'-1"	22'-4"	27'-9"	25'-10"	24'-3"	22'-4"	
	NI-60	27'-3"	24'-11"	23'-5"	21'-7"	27'-6"	24'-11"	23'-5"	21'-7"	
	NI-70	28'-8"	26'-8"	25'-3"	23'-4"	29'-3"	26'-11"	25'-3"	23'-4"	
16"	NI-80	29'-1"	27'-0"	25'-9"	23'-10"	29'-8"	27'-6"	25'-10"	23'-10	
	NI-90x	29'-11"	27'-10"	26'-6"	24'-10"	30'-6"	281-5"	26'-11"	24'-10'	

^{1.} Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.

^{2.} Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist spacing of 24 inches or less. The composite floor may include 1/2 inch gypsum celling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum celling attached to joists.

^{3.} Minimum bearing length shall be 1-3/4 inches for the end bearings.

^{4.} Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.

^{5.} This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.

^{6.} Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



Live Load = 40 psf, Déad Load = 15 psf Simple Spans, L/480 Deflection Limit 5/8" OSB G&N Sheathing







	Series	Bare				1/2" Gypsum Ceiling				
Depth			On Centr	e Spacing	· On Centre Spacing					
vehui	2000	12°	16"	19.2"	24"	12"	16"	19.2	24"	
	NI-20	15'-1"	14'-2"	13'-9"	N/A	15'-7"	14'-8"	14'-2"	N/A	
	NI-40x	16'-1"	15'-2"	14'-8"	N/A	16'-7"	15'-7"	15'-1"	N/A	
9-1/2"	NI-60	16'-3"	15'-4"	14'-10"	N/A	16'-8"	15'-9"	15'-3"	N/A	
2 ~/-	NI-70	17'-1"	16'-1"	15'-6"	N/A	17'-5"	16'-5"	15'-10"	N/A	
	NI-80	17'-3"	16'-3"	15'-8"	N/A	17'-8"	16'-7"	16'-0"	N/A	
	NI-20	16'-11"	16'-0"	15'-5"	N/A	17'-6"	16'-6"	16'-0"	N/A	
	NI-40x	18'-1"	17'-0"	16'-5"	N/A	18'-9"	17'-6"	16'-11"	N/A	
	NI-60	18'-4"	17'-3"	16'-7"	N/A	19'-0"	17'-8"	17'-1"	N/A	
11-7/8°	NI-70	19'-6"	18'-0"	17'-4"	N/A	20'-1"	18'-7"	17'-9"	N/A	
	NI-80	19'-9"	18'-3"	17'-6"	N/A	20'-4"	18'-10"	17'-11"	N/A	
.,		20'-4"	18'-9"	17'-11"	N/A	20'-10"	19'-3"	18'-5"	N/A	
	NI-40x	20'-1"	18'-7"	17'-10"	N/A	20'-10"	19'-4"	18'-6"	N/A	
	NI-60	20'-5"	18'-11"	18'-1"	N/A	21'-2"	19'-7"	18'-9"	N/A	
14º :	NI-70	21'-7"	20'-0"	19'-1"	N/A	22'-3"	20'-7"	19'-8"	N/A	
	NI-80	21'-11"	20'-3"	19'-4"	N/A	22'-7"	20'-11"	20'-0"	N/A	
	N1-90x	22'-7"	20'-11"	19'-11"	N/A	23'-3"	21'-6"	20'-6"	N/A	
	NI-60	22'-3"	20'-8"	19'-9"	N/A	23'-1"	21'-5"	20'-6"	N/A	
	NI-70	23'-6"	21'-9"	20'-9"	N/A	24'-3"	22'-5"	21'-5"	N/A	
16"	NI-80	23'-11"	22'-1"	21'-1"	N/A	24'-8"	22'-10"	21'-9"	N/A	
	NI-90x	24'-8"	22'-9"	21'-9"	N/A	25'-4"	23'-5"	22'-4"	N/A	

Depth	Series		Mid-Spar	Blocking	Mid-Span Blocking and 1/2" Gypsum Ceiling				
		On Centre Spacing				On Centre Spacing			
	201144	12"	16"	19.2"	24"	12"	16"	19.2"	24"
	NI-20	16'-8"	15'-3"	14'-5"	N/A	16'-8"	15'-3"	14'-5"	N/A
	NI-40x	17'-11"	16'-11"	16'-1"	N/A	18'-5"	17'-1"	16'-1"	N/A
9-1/2"	NI-60	18'-2"	17'-1"	16'-4"	N/A	18'-7"	17'-4"	16'-4"	N/A
3.117	NI-70	19'-2"	17'-10"	17'-2"	N/A	19'-7"	18'-3"	17'-7"	N/A
	NI-80	19'-5"	18'-0"	17'-4"	N/A	19'-10"	18'-5"	17'-8"	N/A
	NI-20	19'-6"	18'-1"	17¹-3"	N/A	19'-11"	18'-3"	17'-3"	N/A
	NI-40x	21'-0"	19'-6"	18'-8"	N/A	21'-7"	20'-2"	19'-2"	N/A
	NI-60	21'-4"	19'-9"	18'-11"	N/A	21'-11"	20'-4"	19'-6"	N/A
11-7/8"	NI-70	22'-6"	20'-10"	19'-11"	N/A	23'-0"	21'-5"	20'-5"	N/A
	NI-80	22'-9"	21'-1"	20'-1"	N/A	23'-3"	21'-7"	20'-8"	N/A
	NI-90x	23'-4"	21'-8"	20'-8"	N/A	23'-10"	22'-2"	21'-2"	N/A
	NI-40x	23'-7"	21'-11"	20'-11"	N/A	24'-3"	22'-7"	21'-7"	N/A
	NI-60	24'-0"	22'-3"	21'-3"	N/A	24'-8"	22'-11"	21'-11"	N/A
4.41	NI-70	25'-3"	23'-4"	22'-3"	N/A	25'-10"	24'-0"	22'-11"	N/A
14º	NI-70	25'-7"	23'-8"	22'-7"	N/A	26'-2"	24'-4"	23'-2"	N/A
	NI-90x	26'-4"	24'-4"	23'-3"	N/A	26'-10"	24'-11"	23'-9"	N/A
	NI-50X	26'-5"	24'-6"	23'-4"	N/A	27'-2"	25'-3"	24'-2"	N/A
16"	NI-70	20 -3 27'-9"	25'-8"	24'-6"	N/A	28'-5"	26'-5"	25'-2"	N/A
		28'-2"	26'-1"	24'-10"	N/A	28'-10"	26'-9"	25'-6"	N/A
	NI-80	29'-0"	26'-10"	25'-7"	N/A	29'-7"	27'-5"	26'-2"	N/A
	N1-90x	43 °U	20 -10		11/11				1911

^{1.} Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.

^{2.} Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 Inches or less. The composite floor may include 1/2 Inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum celling attached to Joists.

^{3.} Minimum bearing length shall be 1-3/4 inches for the end bearings.

^{4.} Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.

^{5.} This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA 086-09, NBC 2010, and OBC 2012.

^{6.} Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



Live Load = 40 bst, Dead Load = 15 psf Simple Spans, L/480 Deffection Limit 3/4" OSB GRN Sheathing







Depth	Serles		Ba	are	1/2" Gypsum Celling On Centre Spacing				
			On Centr	e Spacing					
	0000	12"	16"	19.2"	24"	12"	16"	19,2"	24"
	NI-20	15'-10"	15'-0"	14'-5"	13'-5"	· 16'-4"	15'-5"	14'-6"	13'-5"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-9"	17'-5"	16¹-5"	15'-10"	15'-2"
9-1/2"	NI-60	17'-2"·	16'-2"	15'-7"	14'-11"	17'-6"	16'-7"	15'-11"	15'-3"
3-1,2	NI-70	18'-0"	16'-11"	16'-3"	1 5'-7"	18'-5"	17'-3"	16'-7"	15'-11"
	N1-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	16'-1"
	NI-20	17'-10"	16'-10"	16'-2"	15'-6"	18'-6"	17'-4"	16'-9"	16'-1"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-6"	19'-11"	18¹-6"	17'-9"	17'-0"
	NI-60	19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'-9"	17'-11"	17'-2"
11-7/8	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"	18'-10"	17'-10"
	NI-80	21'-1"	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
	N1-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"
	N1-40x	21'-5"	19'-10"	18'-11"	17'-11"	22'-1"	20'-6"	19'-7"	18'-7"
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"
14"	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21'-11"	20'-10"	19'-9"
14	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"	24'-8"	22'-10"	21'-9"	20'-7"
	NI-60	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"	21'-8"	20'-6"
	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'-9"	21'-6"
16"	N1-70	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"

Depth			Mid-Spar	ı Blocking	Mid-Span Blocking and 1/2" Gypsum Ceiling On Centre Spacing				
	Series		On Centr	e Spacing					
	201109	12"	16 ⁿ	19.2"	24*	12"	16"	19.2"	24"
	NI-20	16'-10"	15'-5"	14'-6"	13'-5"	16'-10"	15'-5"	14'-6"	13'-5"
	N1-40x	18'-8"	17'-2"	16'-3"	15'-2"	18'-10"	17'-2"	16'-3"	15'-2"
9-1/2"	NI-60	18'-11"	17'-6"	16'-6"	15'-5"	19'-2"	17'-6"	16'-6"	15'-5"
J-1/2	NI-70	20'-0"	18'-7"	17'-9"	16'-7"	20'-5"	18'-11"	17'-10"	16'-7"
	NI-80	20'-3"	18'-10"	17'-11"	16'-10"	20'-8"	19'-3"	18'-2"	16'-10'
	NI-20	20'-1"	18'-5"	17'-5*	16'-2"	20'-1"	18'-5"	17'-5"	16'-2"
	Nt-40x	21'-10"	20'-4"	19'-4"	17'-8"	22'-5"	20'-6"	19'-4"	17'-8"
	NI-50	22'-1"	20'-7"	19'-7"	18 ¹ -4"	22'-8"	20'-10"	19'-8"	18'-4"
11-7/8"	NI-70	23'-4"	21'-8"	20'-8"	19'-7"	23'-10"	22'-3"	21'-2"	19'-9"
	NI-80	23'-7"	21'-11"	20'-11"	19'-9"	24'-1"	22'-6"	21'-5"	20'-0"
	NI-90x	24'-3"	22'-6"	21'-6"	20'-4"	24'-8"	23'-0"	22'-0"	20'-9"
	NI-40x	24'-5"	22'-9"	21'-8"	19'-5"	25'-1"	23'-2"	21'-9"	19'-5"
	NI-60	24'-10"	23'-1"	22'-0"	20'-10"	25'-6"	23'-8"	22'-4"	20'-10'
14 "	N1-70	26'-1"	24'-3"	23'-2"	21'-10"	26'+8"	24'-11"	23'-9"	22'-4"
14	NI-80	26'-6"	24'-7"	23'-5"	22'-2"	27'-1"	25'-3"	24'-1"	22'-9"
	NI-90x	. 27'-3"	25'-4"	24'-1"	22'-9"	27'-9"	25'-11"	24'-8"	23'-4"
	NI-60	27'-3"	25'-5"	24'-2"	22'-10"	28'-0"	26'-2"	24'-9"	23'-1"
	NI-70	28'-8"	26'-8"	25'-4"	23'-11"	29'-3"	27'-4"	26'-1"	24'-8"
16"		29'-1"	27'-0"	25'-9"	24'-4"	29'-8"	27'-9"	26'-5"	25'-0"
	NI-80 NI-90x	29'-11"	27'-10"	26'-6"	25'-0"	30'-6"	28'-5"	27'-2"	25'-8"

^{1.} Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.

3. Minimum bearing length shall be 1-3/4 inches for the end bearings.

^{2.} Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist spacing of 24 inches or less. The composite floor may include 1/2 inch gypsum celling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.

^{4.} Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.

^{5.} This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA 086-09, NBC 2010, and OBC 2012.

^{6.} Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-Joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



Live Load = 40 psf, Dead Load = 30 psf Simple Spans, L/480 Deflection Umit 5/8" Os8 G&N Sheathing







Depth	Series		8a	are	1/2" Gypsum Celling On Centre Spacing				
			On Centr	e Spacing					
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
	NI-20	15'-1"	14'-1"	13'-3"	N/A	15'-7"	14'-1"	13'-3"	N/A
	NI-40x	16'-1"	15'-2"	14'-8"	N/A	15'-7"	15'-7"	15'-1"	N/A
9-1/2"	NI-60	16'-3"	15'-4"	14'-10"	N/A	16'-8"	15'-9"	15¹-3"	N/A
,-	NI-70	17'-1"	16'-1"	15'-6"	N/A	17'-5"	16'-5"	15'-10"	N/A
	NI-80	17'-3"	16'-3"	15'-8"	N/A	17¹-8"	16'-7"	16'-0"	N/A
	NI-20	16'-11"	16'-0"	15'-5"	N/A	17'-6"	16'-6"	16'-0"	N/A
	NI-40x	18'-1"	17'-0"	16'-5"	N/A	18'-9"	17'-6"	16'-11"	N/A
	N1-60	18'-4"	17'-3"	16'-7"	N/A	19'-0"	17'-8"	17'-1"	N/A
11-7/8"	NI-70	19'-6"	18'-0"	17'-4"	N/A	20'-1"	18'-7"	17'-9"	N/A
	N1-80	19'-9"	18'-3"	17'-6"	N/A	20'-4"	18 -10	17'-11"	N/A
	NI-90x	20'-4"	18'-9"	17'-11"	N/A	20'-10"	19'-3"	18'-5"	N/A
	NI-40x	20'-1"	18'-7"	17'-10"	N/A	20'-10"	19'-4"	18'-6"	N/A
	NI-60	20¹-5"	18'-11"	18'-1"	N/A	21'-2"	19'-7"	18'-9"	N/A
14"	NI-70	21'-7"	20'-0"	19'-1"	N/A	22'-3"	20'-7"	19'-8"	N/A
14	NI-80	21'-11"	20'-3"	19'-4"	N/A	22'-7"	20'-11"	20'-0"	N/A
	NI-90x	22'-7"	20'-11"	19'-11"	N/A	23'-3"	21'-6"	20'-6"	N/A
	NI-60	22'-3"	20'-8"	19'-9"	N/A	23'-1"	21'-5"	20'-6"	N/A
	NI-70	23'-6"	21'-9"	20'-9"	N/A	24'-3"	22'-5"	21'-5"	N/A
16"	NI-80	23'-11"	22'-1"	21'-1"	N/A	24'-8"	22'-10°	21'-9"	N/A
•	NI-90x	24'-8"	22'-9"	21'-9"	N/A	25'-4"	23'-5"	22'-4"	N/A

	Series		Mid-Spar	Blacking	Mid-Span Blocking and 1/2" Gypsum Ceiling On Centre Spacing				
Depth			On Centr	e Spacing					
pepui		12"	16 ⁿ	19.2"	24"	12"	16"	19.2"	24"
	NI-20	15'-7"	14'-1"	13'-3"	N/A	15'-7"	14'-1"	13'-3"	N/A
	NI-40x	17'-9"	16'-1"	15'-1"	N/A	17'-9"	16'-1"	15'-1"	N/A
9-1/2"	NI-60	18'-1"	16'-4"	15'-4"	N/A	18'-1"	16'-4"	15'-4"	N/A
J 2,12	NI-70	19'-2"	17'-10"	16'-9"	N/A	19'-7"	17'-10"	16'-9"	N/A
	NI-80	19'-5"	18'-0"	17'-1"	N/A	19'-10"	18'-3"	17'-1"	N/A
	NI-20	18'-9"	17'-0"	16¹-0"	N/A	18'-9"	17'-0"	16'-0"	N/A
	Nt-40x	21'-0"	19'-3"	17'-9"	N/A	21'-3"	19'-3"	17'- 9 "	N/A
	NI-60	21'-4"	19'-8"	18'-5"	N/A	21'-8"	19'-8"	18'-5"	N/A
11-7/8°	N1-70	22'-6"	20'-10"	19'-11"	N/A	23'-0"	21'-4"	20'- 0 "	N/A
	NI-80	221-9*	21'-1"	20'-1"	N/A	23'-3"	21'-7"	20'-5"	N/A
	NI-90x	23'-4"	21'-8"	20'-8"	N/A	23'-10"	22'-2"	21'-2"	N/A
	NI-40x	23'-7"	21'-5"	19'-6"	N/A	24'-1"	21'-5"	19'-6"	N/A
	NI-60	24'-0"	22'-3"	21'-0"	N/A	24'-8"	22'-5"	21'-0"	N/A
14"	N1-70	25'-3"	23'-4"	22'-3"	N/A	25'-10"	24'-0"	22'-9"	N/A
**	NI-80	25'-7*	23'-8"	22'-7"	N/A	26'-2"	24'-4"	23'-2"	N/A
	NI-90x	26'-4"	24'-4"	23'-3"	N/A	26'-10"	24'-11"	23'-9"	N/A
	NI-60	26'-5"	24'-6"	23'-4"	N/A	27'-2"	24 10"	23'-4"	N/A
	NI-70	27'-9"	25'-8"	24'-6"	N/A	28'-5"	26'-5"	25'-2"	N/A
16"	NI-80	28'-2"	26'-1"	24'-10"	N/A	28'-10"	26'-9"	25'-6"	N/A
	NI-90x	29'-0"	26'-10"	25'-7"	N/A	29'-7"	27'-5"	26'-2"	N/A

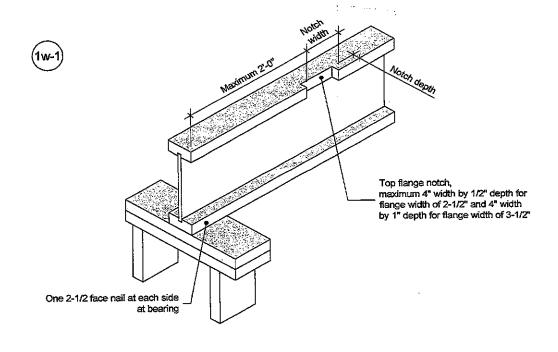
Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 psf. The
ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration,
a live load deflection limit of L/480 and a total load deflection limit of L/240.

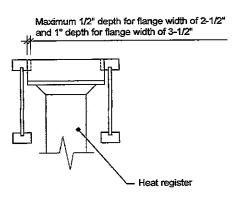
^{2.} Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.

 ^{3.} Minimum bearing length shall be 1-3/4 inches for the end bearings.
 4. Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.

^{5.} This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA OB6-09, NBC 2010, and OBC 2012.

^{6.} Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.





- Notes:

 1. Blocking required at bearing for lateral support, not shown for clarity.

 2. The maximum dimensions for a notch on the side of the top flange are 4-inch width by 1/2-inch depth for flange width of 2-1/2 inches, and 4-inch width by 1-inch depth for flange width of 3-1/2 inches.

 3. This detail applies to simple-span joists and multiple-span joists where the notch is located at the end half-span.
- 4. For other applications, contact Nordic Structures.

This document supersedes all previous versions. If the document has been in effect for more than one year, consult nordic.ca or contact Nordic Structures. All nails shown in the details are assumed to be common nails unless otherwise noted. Nails shall have a diameter not less than 0.128 inch for 2-1/2-inch nails, or 0.144 inch for 3-inch nails. Individual components not shown to scale for clarity.



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Notch in I-joist for Heat Register

I-joist - Typical Floor Framing and Construction Details

DATE NUMBER 2018-04-10 1w-1

Construction Detail Limit States Design

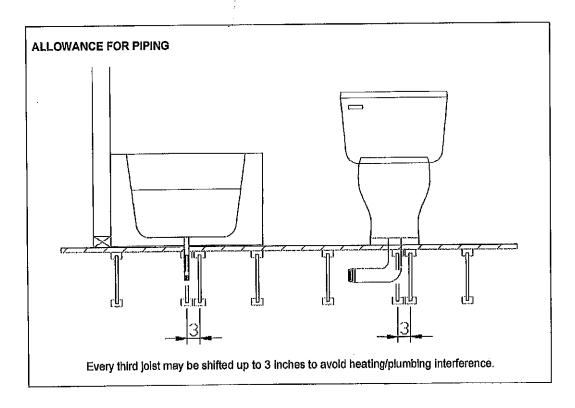


Allowance for Piping (Installation Notes)

The floor layouts have usually not been checked for heating and/or plumbing interference. On-site adjustment of joists of up to 3 inches is permitted to avoid interferences. When moving a joist, the subfloor thickness shall be checked with code requirements when the joist spacing exceeds 19.2 inches. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.

Installation of Nordic I-joists shall be as per *Nordic Joist Installation Guide for Residential Floors*. Refer to Tables 1 and 2 for maximum web hole and duct chase openings, respectively. These tables are based on the I-joists being used at their maximum spans. The minimum distance given may be reduced for shorter spans; contact your distributor for additional information.

The detail below shows the 3-inch allowance for piping. Every third joist may be shifted up to 3 inches to avoid heating/plumbing interference. For other applications, please contact your distributor.



Revised April 12, 2012